

TM 925 - YERSINIA IDENTIFICATION BROTH BASE

INTENDED USE

For identification of *Yersinia species*.

PRODUCT SUMMARY AND EXPLANATION

There are three species of *Yersinia* with unquestionable pathogenicity for humans *Yersinia pestis*, *Yersinia pseudotuberculosis* and *Yersinia enterocolitica*. Among these, *Y. enterocolitica* is usually associated with foodborne gastroenteritis. It is the most common species of *Yersinia* recovered from clinical specimens. The portal of entry in humans is the oral digestive route, with infection occurring in the terminal ileum. *Yersinia* Identification Broth Base is recommended for the identification of *Yersinia* from food and animal feeds by the ISO Committee.

Inoculate the test sample in PSB Broth and ITC Broth for enrichment. After incubation at 25°C for 2-3 days, inoculate onto *Yersinia* Selective Agar Base. Presumptive *Yersinia* colonies are confirmed biochemically by inoculating into *Yersinia* Identification Broth Base.

COMPOSITION

Ingredients	Gms / Ltr
L-Tryptophan	3.000
Potassium dihydrogen phosphate	1.000
Dipotassium hydrogen phosphate	1.000
Sodium chloride	5.000
Phenol red	0.025

PRINCIPLE

L-Tryptophan serves as a base to test indole reaction. Phosphates buffer the medium while sodium chloride maintains the osmotic equilibrium of the medium. Phenol red is the pH indicator dye. Urea is broken down by enzyme urease to yield ammonia. Ammonia increases the pH of the medium towards alkalinity, consequently making the phenol red indicator dye to change from an orange-red to a pink-violet colour.

INSTRUCTION FOR USE

- Dissolve 10.02 grams in 1000 ml purified / distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add Urea solution.
- Mix well and dispense in sterile tubes or flasks as desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to light pink homogeneous free flowing powder.
Appearance of prepared medium	: Orange-red coloured clear solution without any precipitate.
pH (at 25°C)	: 6.9±0.2

INTERPRETATION

Cultural characteristics observed, after an incubation with added Urea solution.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Urease production	Colour change of medium	Incubation Temperature	Incubation Period
<i>Yersinia enterocolitica</i>	27729	50-100	Luxuriant	Positive reaction	Orange-red to cerise	30-32°C	18-24 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.













Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
- Downes F. P. and Ito K., (Ed.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
- International organization for standardization, (ISO), 1994, Draft ISO 10273. Microbiology of food and animal feeding stuffs--Horizontal method for the detection of presumptive pathogenic *Yersinia enterocolitica*.
- Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
- Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W.(2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
- Koneman E. W., Allen S. D., Janda W. M., Schreckenberger P. C., Winn W. C. Jr., 1992, Colour Atlas and Textbook of Diagnostic Microbiology, 4th Ed., J. B. Lippincott Company

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative	 CE European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For Lab Use Only
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